EFFICACY OF LINE DRIVES TO LOCATE MONTEZUMA QUAIL AT ELEPHANT MOUNTAIN WILDLIFE MANAGEMENT AREA

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ABSTRACT

There is little information on the status of Montezuma quail (*Cyrtonyx montezumae*) in Texas. Most of the literature that does exist is either outdated or from out-of-state sources (i.e., New Mexico and Arizona). We initiated a pilot study to document and update general life history information of Montezuma quail at Elephant Mountain Wildlife Management Area, Brewster County, Texas in March 2000. To establish the study area, we used sign of recent Montezuma quail use (i.e., diggings) to document areas of use, resulting in a 114-ha area on top of Elephant Mountain proper. This study plot subsequently was sampled by the 3 line drives consisting of 17, 12, or 10 observers/line. The observers walked abreast of each other towards a designated point, covering the entire width (600 m) of the sample area. Two line drives were conducted in December 2000 (17- and 12-observer lines) and 1 in March 2001 (10-observer line). All line drives were conducted in the morning between 0900–1200 hrs. Average distances between observers for the 17-, 12-, and 10-observer lines were 35, 50, and 60 m, respectively. The average speed for all 3 line drives was 2.5 km/hr. Only the 17-observer line drive detected quail. Two coveys were flushed, 1 of 4 birds (1 M and 3 F) and 1 of 5 birds (2 M and 3 F). The birds only flushed if the observer was <1 m from them. One possible reason for the low detection of quail may be their defense strategy, which is to crouch down and lay motionless. Based on these limited data, we infer that to increase the probability of effectively locating Montezuma quail, the distance between observers must be < 35 m and the number of observers increased. Line drives with few observers and large spacing between observers may not be a suitable technique to locate Montezuma quail.

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